

Chesterfield Fire Department

Fire Alarm Systems

Minimum Information Required With Application

PROJECT:

PERMIT #:

A minimum of **four copies** of shop drawing, and submittal data shall be provided with permit application permitting evaluation of the system **PRIOR TO** installation. The permit application shall clearly designate the system as being **required** for compliance with the Virginia Uniform Statewide Building Code, or installed as an **elective** system at the discretion of the owner.

- " Name and address of project or tenant where system will be installed; include associated building permit number with project.
- " Name, address and telephone number of designer of fire alarm system.
- " **Four copies** of construction documents including the following items:

FLOOR PLAN

- a." Floor plan to scale or dimensioned for verification of device spacing showing the layout of the building including walls and/or partitions. Include location of fire rated assemblies and indicate how the rated walls will be maintained when penetrated by equipment and/or wiring. Indicate what each room or space is to be used for by the occupants.
- b." Device to device wiring arrangement in the structure from fire alarm panel to all devices, inclusive of last device, indicating location of end of line resistor where applicable for clarity of system. Indicate style of wiring used for determining how system will respond to different conditions associated with the functionality. Indicate size of wiring, number of conductors used, and protection methods required by NFPA 70.
- c." Location and number of all alarm-initiating devices and alarm-notification appliances on floor plan. Indicate mounting height of all devices, and, where required to be provided with a ceiling initiating devices, (smoke detectors, heat detectors, beam detectors, etc.) indicate type of ceiling layout (flat, cathedral, sloped, peaked, solid joist construction, etc.).

- d." Location of all fire alarm control panels, annunciator panels, digital communicator or other off-site premises report devices.
- e." Indicate how each fire alarm zone is designed in the building to meet provisions of the manufacturer's accepted practices (number of devices permitted on a zone) and/or as required by the Virginia Uniform Statewide Building Code (per floor, maximum of 20,000 square feet, and/or maximum of 300 feet in any direction).
- f." When applicable, a scaled cross section of detector mounting locations for door closure operation in accordance with NFPA 72.

RISER DIAGRAM

- g." Provide a single line riser diagram for devices on the fire alarm system for:
 - C Initiating devices
 - C Indicating devices
 - C Elevator capture
 - C Door hold open functions
 - C Special locking devices
 - C HVAC controls

STAND ALONE INFORMATION

- h." Verify size of HVAC systems in CFM rating to determine requirement for duct mounted smoke detectors. **Contractor shall be capable of performing air pressure differential testing at smoke detector to verify proper placement of the device.**
- i." Source of primary and secondary power. Provide calculations for all secondary power sources as required for type equipment to be installed.
- j." Method of communications with monitoring agencies and number of telephone lines used for the transmission.
- k." Manufacturer's cut-sheets on all equipment used in the system. Where cut sheets cover multiple devices, indicate those devices used in the system. Specifically provide information for the Digital Alarm Communications Transmission (DACT) options.
- l." Name, address, and telephone number of company monitoring the fire alarm system. Indicate if the company is a UL Listed Central Station or Remote Station.

“ Provide a signal schedule to include the following information for **INTELLIGENT SYSTEMS**:

POINT (A)	TYPE OF SIGNAL (B)	ALPHA NUMERIC NOMENCLATURE (C)	LOCAL FUNCTION (D)	OFF SITE SIGNAL (E)

(A)“ POINT -Designation by designer of numeric point

(B)“ TYPE OF SIGNAL - Alarm, Supervisory, or Trouble signal

(C)“ ALPHA NUMERIC NOMENCLATURE -Type of initiating device (Manual Pull, Sprinkler Water Flow, HVAC Smoke Detector, OS&Y Tamper Switch, PIV Tamper Switch, etc.)

(D)“ LOCAL FUNCTION - Fire alarm system status (A/V activation, Panel Trouble, Panel Supervisory)

(E)“ OFF/SITE SIGNAL - Generic/Specific signal correlating with each point as transmitted to monitoring company.

NOTE: ARE MULTIPLE COMMON SIGNAL TYPES GROUPED TO TRANSMIT A GENERIC SIGNAL TO MONITORING SOURCE?

DOES EACH POINT/ZONE TRANSMIT DISTINCTIVELY TO MONITORING SERVICE?

“ Provide a signal schedule to include the following information for **NON-INTELLIGENT SYSTEMS**:

ZONE (A)	TYPE OF SIGNAL (B)	ZONE DESCRIPTION (C)	STATUS OF FIRE ALARM SYSTEM (D)	OFF-SITE SIGNAL (E)

(A)“ POINT - Designation by designer of numeric point.

(B)“ TYPE OF SIGNAL - Alarm, Supervisory, or Trouble signal.

(C)“ ZONE DESCRIPTION - Floor level or area of zone.

(D)“ STATUS OF FIRE ALARM SYSTEM - Fire Alarm System Status (A/V activation, Panel Trouble, Panel Supervisory)

(E)“ OFF/SITE SIGNAL - Generic/specific signal coordinated with each zone as transmitted to monitoring company.

NOTE: ARE MULTIPLE COMMON SIGNAL TYPES GROUPED TO TRANSMIT A GENERIC SIGNAL TO MONITORING SOURCE?

DOES EACH POINT/ZONE TRANSMIT DISTINCTIVELY TO MONITORING SERVICE?